

# Division of Land Surveys

2022 Corner Restoration Program Review

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#### Reason

The Division periodically reviews the Corner Restoration Program and other workflow processes to identify areas of the program that can be improved and streamlined to assess the effectiveness of past changes. The Division of Land Surveys is a small division with a small budget, so it is imperative to be as efficient as possible to achieve PLSS restoration goals.

# **Arkansas Public Land Survey System**

#### Origin of the Arkansas PLSS

On May 6<sup>th</sup>, 1812, <u>Congress passed an Act</u> to designate, survey, and grant military bounty lands to United States military veterans who served in military campaigns, principally the War of 1812. This Act authorized the President of the United States to cause to be surveyed six million acres of land in the Territory of Michigan, Territory of Illinois, and the Territory of Louisiana (part of which is the current day State of Arkansas). This Act specified the land surveyed in the Louisiana Territory as "between the rivers St. Francis and the Arkansas." This language would influence the position of the 5<sup>th</sup> principal meridian and the baseline.

On July 26<sup>th</sup>, 1815, GLO Surveyor General, Edward Tiffin, directed (<u>via a letter</u>) Principal Deputy Surveyor William Rector to "...have surveyed two million acres of land between the Rivers St. Francis and Arkansas" (Elgin, The Initial Point of the 5th Principal Meridian, 2015). This letter further directed Rector:

• "Let a standard line be accurately run from the confluence of the Arkansas with the Mississippi due North according to the true meridian so far that a base line run due west from the mouth of the River St. Francis to the Mississippi will intersect it as laid down on the plan."

William Rector contracted with surveyors Prospect Robbins and Joseph Brown to survey the standard line (5<sup>th</sup> principal meridian) and the base line, respectively. On October 27<sup>th</sup>, 1815, Joseph Brown began surveying west from the mouth of the St. Francis River, and Prospect Robbins began surveying north from the mouth of the Arkansas River. On November 2<sup>nd</sup>, Joseph Brown arrived at the location of what



Original notes for the Initial Point by Prospect Robbins, dated November 10<sup>th</sup>, 1815

would become the initial point. Prospect Robbins intersected the baseline, setting the initial point and taking two reference trees. (Elgin, The Initial Point of the 5th Principal Meridian, 2015)

#### The Layout of the Arkansas PLSS

The GLO General Surveyor issued instructions to deputy surveyors to survey and break down the townships. Edward Tiffin issued instructions in 1815, James Conway in 1833, Edward Cross in 1837, and William Pelham in 1843. For a comprehensive review of the layout of the Arkansas PLSS and the methods by which it was surveyed, I will refer any surveyor or student to the 2011 book "U.S. Public Land Survey System for Arkansas" by Dr. Richard Elgin, PS, PE, and Dr. David Knowles, PS, PE.

# Early History of the Corner Restoration Program

Between 1960 and 1975, about 800 corner restorations were conducted. Corner certificates reporting this fieldwork were filed at the county

recorder's office of the county in which the work was performed. Later, these certificates were filed with the Division of Land Surveys. The Division of Land Surveys would not start doing its own corner restorations through vendors until 1975.

#### First State Corner

On November 19, 1975, surveyor A.J. Robinson supervised the setting of the Corner Restoration Program's first set monument at <u>04S-32W-18-N</u>. This project was observed by 27 guests, including State Surveyor Rayford Hudson and Monument Program Coordinator J.L. "Larry" Young. This first monument was set based on an original GLO witness tree. This witness tree, a Holly first recorded in 1845, <u>still</u> <u>stands today</u>.

#### Certificate Filing

The county-only certificate recording was phased out in the late 1970s and replaced with dual (county and state) recording and eventually only state recording. The '80s would see about 6,600 corner certificates filed. Filed certified corners declined in the 1990s to just under 2,300. This would tick up to just over 3,300 in the 2000s and then back down to 2,300 filed in the 2010s.

In the 1990s, the old hardcopy corner certificates were scanned and indexed into a digital database. This database was eventually published on the internet and made available to surveyors.

#### **Specifications**

In 2005, the corner certificate format was revised to include a sketch page. In 2016, it was revised again to include photos of the monument and accessories.

Little has changed in the program's history regarding monument accessories. Traditionally, four references have been required. Generally, these references have been trees marked with a painted band, "WT" scribe, a notch with a nail, and a bearing or location tag.

#### Staff (Corner Program)

In addition to the State Surveyor, the Division usually has a Monument Program Coordinator. In the past, this position was responsible for coordinating with corner restoration vendors and managing the office's filed corner certificates. The first person to serve in this position was J.L. "Larry" Young. Ben Kittler was Monument Program Coordinator from 2007 to 2015 and



Reference tree with "Do Not Disturb" sign, location tag, painted band, and blaze with "WT" scribe

oversaw the installation of over 2000 PLSS monuments.

# **Corner Restoration Program - Recent History**

The Division of Land Survey became a division of the Arkansas GIS Office in 2015. With this move, added emphasis was placed on the Corner Restoration Program. Arkansas's PLSS is a fundamental building block for nearly all land data, especially GIS data.

In 2018, the Monument Program Coordinator position was re-established. This brought the number of Division employees from two to three.

#### Mapping the Corner Certificates

In late 2018, Division staff and senior GIS staff began developing a strategy to move the tabular corners database to a geospatial database. The goal was to represent all 18,000 corner certificates on a public web map that surveyors and others could use.

This project took several hundred hours of programming and manual edits. Senior GIS staff developed a code to programmatically place about 13,000 tabular records at their corresponding geographic location. This was possible because there was enough indexing information in the older digital records to spatially join the records to an existing PLSS GIS layer. However, about 5,000 corner certificate records did not have enough indexing information and would have to be plotted on a map manually. This corner certificate mapping layer went live in March of 2020.

#### In-house Development of Mapping Control

Alongside the new corner certificate GIS layer, development was being made on an in-house program to establish accurate geographic positions on existing PLSS monuments. In 2019, GNSS equipment was purchased to help implement this process. With this positioning data, the Division began building statewide mapping control to help improve Arkansas's GIS framework and to map the locations of certified corners accurately. As of August 2022, the Division has visited and recorded geographic position on over 600 PLSS monuments.

#### County Line and PLSS

With such many PLSS corner locations and limited staff, careful prioritization is made when planning inhouse projects. There are around 1,000 certified corners that coincide with a county line in Arkansas. When possible, the Division targets these monuments when planning in-house work.

These county lines (and underlying PLSS) often control numerous administrative boundaries. These boundaries include court districts, JP districts, election precincts, school board zones, public school districts, senate and house districts, tax parcels, and congressional districts.

GNSS coordinates are recorded when the Division restores a county line PLSS monument. These coordinates are used to make small improvements to the state's official county line map. These improvements are published twice yearly to the Arkansas Spatial Data Infrastructure (formally known as Geostor).

#### State Line and PLSS

Since late 2020, the Division has devoted much effort to finding, restoring, and measuring GLO milepost and section closing corners along Arkansas's state boundary. The vast majority of this work has been along Arkansas's border with Oklahoma. The GLO surveyed this border to demarcate the boundary between the United States and the Cherokee/Choctaw Nations in 1825, 1858, and 1877. Good records exist for these surveys, and much of the original evidence <u>remains to this day</u>.

The Division along the Arkansas/Louisiana line has perpetuated a few mileposts and section closing corners. The GLO surveyed this line in 1830 and 1895.

Several mileposts and state line closing corners have been perpetuated by Division vendors along the Arkansas/Missouri line. Most of this work has occurred along the northern boundary of Fulton County.

The Division is developing plans to find and restore state line GLO monument locations along the Arkansas/Texas border. This line was first established and surveyed in 1841 by a joint commission between the Republic of Texas and the United States.

#### **Corner Control Projects**

Since 2018, the Division has completed numerous mapping control projects through contracted surveyors. In early 2018, a division contractor recorded highly accurate GNSS coordinates for 33 PLSS corners in Fulton County. The GNSS mapping control project is meant to aid a future parcel mapping project by the Arkansas GIS Office and Fulton County by establishing an accurate framework from which the parcels are mapped. A schema was developed for the GNSS data using a Bureau of Land Management standard. This "schema" is the data format associated with the GNSS data identifying attributes like section, township, range, datum, and date. Inefficiencies were identified and worked out on this first mapping control project.

Later in 2018, a division contractor completed a GNSS mapping control project covering Benton and Washington Counties. On this project, the contractor found or set 42 aluminum monuments at PLSS corners, completed new certificates, and recorded highly accurate coordinates. This project aided local municipalities in parcel mapping.

By 2019, all Arkansas counties had parcel mapping except Fulton, Searcy, and Nevada Counties. Like Fulton County, funds were allocated toward improving the foundational mapping control for Searcy County. The Division contracted with a surveyor in Searcy County to record GNSS coordinates on 68 PLSS corners spread throughout the county. However, this project was a little different. This is about the time the Division purchased its own GNSS equipment. The Division was able to augment the contractor's work by collecting position data on an additional 47 existing certificated corners. This was the Division's first conducted corner control work to augment a contractor project. Several inefficiencies were corrected, and workflow was streamlined.

In 2021, Crawford County was targeted for the next PLSS mapping control project. We designed this to be a hybrid project, combing contracted work with in-house work, much like the Searcy County project from 2019. A contract surveyor was chosen to collect GNSS positioning data on 80 existing certified corners. This time, Division staff would take on the bulk of the work and record positions on an additional 140 certified corners.

This mapping control project was primarily aimed at aiding local municipalities. However, much effort was put into merging the GNSS attribute data into the U.S. Bureau of Land Management standard schema. In doing so, the Division delivered the data to the Bureau in a format that aided one of their federal land mapping projects. This would become the first such cooperation between the U.S. Bureau of Land Management and an eastern district state (Arkansas).

Much was learned on the Crawford County project about the longevity of modern corner perpetuations. Most of the certified corners in Crawford County were established in the late 1970s and early 1980s. Of the 140 certified corners visited, about 90% were still in good condition despite being 40 years old or older. Additionally, about 40% of the 1970's/1980s witness trees were still standing and in good condition.

#### In-house GNSS Methods

In 2019, the Division purchased a Geomax 35 Pro GNSS receiver and a Carlson Mini 2 data collector. The Division uses this equipment to record coordinates during corner restorations and for standalone mapping control projects. This is a rover-only setup without a base. Instead of a base, the Division uses the ArDOT real-time network.

The ArDOT real-time network provides real-time corrections anywhere in the state with cell coverage. We can typically obtain positional accuracy of better than +/- 0.5 feet depending on the canopy, obstructions, multi-path, and other factors. Numerous checks are made to verify this positional tolerance.

When possible, checks are made on existing monuments with known positions. Another check we use to test positional accuracy is to record a fixed position, reestablish and record a new fix, and then compare the separation between the two positions. Two offset points are established when the monument is too obstructed for direct measurement, and an indirect measurement is achieved using the distance-

distance intersect method. However, these real-time positions and checks are only possible when cell coverage is available.

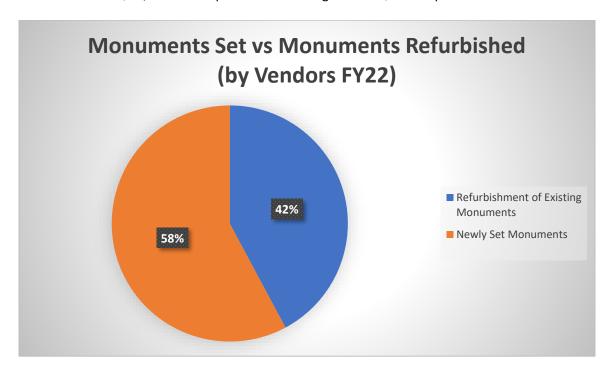
In remote areas with no cell cover (and thus no ArDOT corrections), we use static GNSS positioning methods. The most common such method is to occupy a position for around one hour and process the static file through the National Geodetic Survey's online positioning user service (OPUS). As needed, we can also derive a position by post-processing the receiver file using the ArDOT contiguously operating reference station (CORS) data.



Collecting GNSS data on a newly set PLSS monument in Nashville, Arkansas

#### Fiscal Year 2022 Corner Stats

During the FY22 period, which ran from July 1, 2021, to June 30, 2022, a total of 147 new corner certificates were submitted to the Division for payment. Of these 147 corners, 85 were newly set monuments, and 62 were refurbishments of existing monuments. The total expenditure for these restorations was \$67,800. This equates to an average cost of \$461.22 per corner.



In 2019, the Division established an additional fee of \$50 for corner certificates with highly accurate coordinates (+/- 0.5' or better). Before this extra fee was implemented, most corner certificates did not have a high-level coordinate accuracy. This drastically changed in the following years. For example, of the 147 corners completed during FY22, 127 (87%) had highly accurate coordinates. These coordinates are used as mapping control when they coincide with a county or state line. These coordinates are also used to precisely map corner certificates on the Surveyor/GLO map to allow for efficient project planning by surveyors.

In FY22, this corner work was augmented by Division staff. During the same period (July 1, 2021, to June 30, 2022), Division staff restored 111 GLO section corners, quarter corners, and mileposts. Most of these were restorations of existing state monuments and original GLO mileposts along the Oklahoma border. We recorded GNSS positions on these 111 restorations and met or exceed the desired +/- 0.5' accuracy on 89 monuments (80%). Most of these in-house restorations fell on a county or state line.

Moving into FY23, the Division plans to keep its in-house operations focused on the Oklahoma line milepost recoveries and restorations and other interior county line PLSS monuments. The Division will also focus some of its resources on highly-deficient counties in <u>southwest Arkansas and counties</u> <u>bordering the Mississippi River</u>. Plans are being developed to increase the number of monuments set by in-house operations.

#### Corner Vendors

Throughout the Division's history, private surveyors have done most of the corner restoration work. Around a dozen corner restoration vendors have been working for the Division recently. Due to the importance of restoring GLO corners in the State of Arkansas, the State Legislature passed an Act in 1985 which greatly simplified the process for becoming a corner restoration vendor by removing the state contract requirement (Arkansas Code and Constitution of 1874, 2022). This Act, updated in 2015, is currently in statute as A.C.A. § 15-21-101:

- "15-21-101. Restoration of General Land Office corners.
  - (a) In order to expedite the restoration of the original United States General Land Office or GLO, corners by placement of markers and monuments, a contract between certified land surveyors of this state and the Division of Land Surveys of the Arkansas Geographic Information Systems Office shall not be required.
  - (b) Compensation may be made to any certified surveyor who provides proof of restoration according to specifications prescribed by the Arkansas Geographic Information Systems Board."

A surveyor who wishes to perform corner restorations for the State of Arkansas must only sign an agreement to follow restorations procedures, sign the Israel Boycott Restriction Certification, and provide a W-9. This allows for payment on GLO corner restorations completed to state specification. Vendors are paid for this work once the corner certificate has been submitted (with invoice) to the Division for review.

#### Labor Breakdown for Corner Vendors

Using the FY22 data, the Division estimates that it costs the state \$51.25 per labor hour for corner restorations through vendors. This is an extraordinary return on investment.

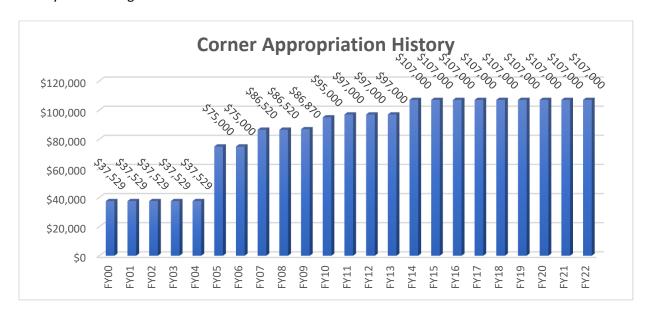
Two hundred sixty surveyors have participated in corner restorations since 1960. These 260 surveyors have set or refurbished over 19,000 corners to date. The Division estimates it takes roughly nine hours to restore one corner (Phillips, 2019). This equates to approximately 170,000 hours of labor and about \$9 million since 1960 (using FY22's hourly cost estimate). If we started the clock in 1975, when the Division began funding corner restorations, these numbers change slightly. Since 1975, there have been roughly 18,000 corner restorations, equating to about 160,000 hours of labor.

# **Corner Restoration Program Funding Over Time**

#### Appropriations

The state legislature determines the limit at which a program *can* be funded each year. This is called appropriations, which is not the same as actual funding. The state legislature-authorized appropriation is merely a legal limit at which a program can be funded. Per-year corners program *appropriation* since the

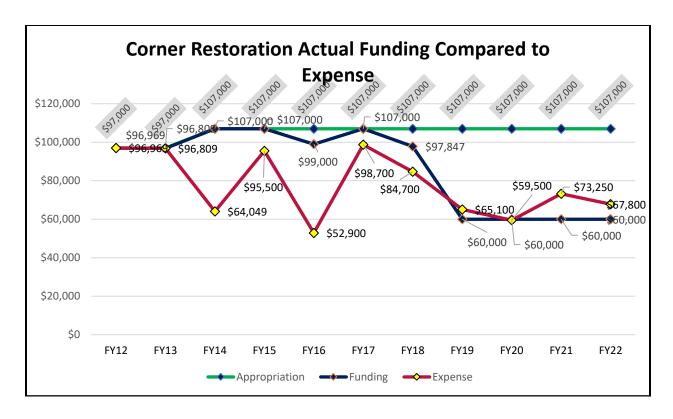
#### fiscal year 2000 is given below:



#### Funding and Expenditure

Actual funding for the corner program is determined by the department's overall budgeting constraints. This amount is determined by department management when weighed against other important budgeting needs such as operations, equipment, and employee salaries. Actual expenditure is yet a different number.

Expenditure is the amount spent on corner restorations, sometimes less than the funded amount. This is due to a lack of corner program participation in some years. For example, FY14 was funded at \$107,000, but the actual expenditure on corner restorations was \$64,049. In FY21 and FY22, mid-year reductions were made in other operations to allow for additional corner restorations. Below is a graph comparing the corner program appropriation, funding, and expenditure from FY12 to FY22:



#### Corner Rates - History

In May 2016, the Division of Land Surveys, under advice from the Land Survey Advisory Board, revised the dollar amounts for the Corner Restoration Program to the following:

- 1. Refurbishment of the existing corner to the state specifications \$300
- 2. Setting of a state monument at an original GLO position \$500

This was the first revision in corner restoration rates in 12 years

In 2019, the Division conducted a study to illustrate the distribution of certified corners established between 2015 and 2019. The expectation was that a higher number of newly certified corners would be found in areas of high population and urban growth. This expectation was generally untrue. A higher participation rate was found in areas of lower populations. Additionally, it was found that southwest Arkansas had the greatest lack of certified corners, not just in recent years but throughout the program's history. The study showed that 29 counties received zero corner restorations during this period. This uneven distribution of certified corners suggested that a tiered rate structure by location could be implemented to incentivize participation and distribution of the statewide corner program.

In May of 2019, the Division, under recommendation from the Land Survey Advisory Board, implemented a \$50 higher corner restoration rate for both refurbishments and re-sets in the 29 counties with no recent corner restorations.

#### Between 2015 and 2019. 29 counties had **zero** corner restorations.

In 2022, the Division conducted another study to evaluate certified corner distribution. It was found that counties in southwest Arkansas and along the Mississippi River are severely deficient in the number of certified corners. 12 Counties have been identified as having 20 or fewer certificated corners. In June of 2022, the Division increased the rate for corner restorations completed in these counties to \$1,000 each. This rate applies only to new corners set with a coordinate accuracy of better than +/-0.5'. Additionally, a rate of \$1,200 was established for corners restored on a county line between two of the 12 severely deficient counties.

#### **Current Restoration Rates**

- \$300 per restoration that does not require monument replacement (use existing monument).
- \$500 per restoration that requires setting a new Division of Land Surveys monument.
- An additional \$50 to be paid per restoration for corners restored in Deficient Counties. An
  additional \$50 is to be paid per restoration for corners restored with coordinates listed and
  certified to an accuracy of +/- 0.5 feet or better.
  - Deficient Counties are as follows: Clay, Cleburne, Columbia, Crawford, Dallas, Lafayette, Lawrence, Ouachita, Perry, Pike, Prairie, Pulaski, Randolph, Sevier, Sharp, Union, Woodruff, and Yell.
- \$1,000 per newly set Division of Land Surveys Monument in a Highly Deficient County.
   Coordinates with an accuracy of +/- 0.5 feet or better are required. This rate only applies to newly set corner monuments and does not apply to corners with an existing corner certificate.
  - Highly Deficient Counties are as follows: Chicot, Clark, Crittenden, Cross, Desha, Hempstead, Lee, Little River, Miller, Nevada, Phillips, and St. Francis.
- \$1,200 per newly set Division of Land Surveys Monument, which is located on a county line between two Highly Deficient Counties. Coordinates with an accuracy of +/- 0.5 feet or better are required. This rate only applies to newly set corner monuments and does not apply to corners with an existing corner certificate.
- Coordinates must be in degrees-minutes-seconds format and values given to the thousandth of a second. Ex. 35°58'36.499", -092°28'04.011".

The Division aims to substantially increase the number of certified corners in highly deficient counties.

# Cherokee / Choctaw Boundary State Line Project

#### Background

The present-day boundary between Oklahoma and Arkansas marked the boundary between the United States and the Choctaw and Cherokee Nations throughout the 1800s. The portion of this boundary line south of the Arkansas River was first surveyed in 1825 by James Conway. Conway would go on to become the Arkansas's first Governor. This survey was to demarcate the boundary between the United States and the Choctaw Nation as defined in the 1825 Treaty of Washington City:

• "...lying east of a line beginning on the Arkansas, one hundred paces east of Fort Smith, and running thence, due south, to Red River: it being understood that this line shall constitute, and remain, the permanent boundary between the United States and the Choctaws..."

This 1825 survey was intended to be run due south. However, as the line was surveyed south from Fort Smith, it angled slightly westward.

Based on the Division's field analysis, the overall westward angle of the Choctaw line is 01°25' from due south

When Arkansas became a state in 1836, the 1825 treaty boundary remained in effect per the language of the 1836 Arkansas Constitution:

• "...to be bounded on the west, to the north bank of Red River, as by acts of congress and treaties heretofore defining the western limits of the territory of Arkansas".

In 1858, surveyors Jones and Brown retraced the original 1825 Conway line. This 1858 survey held the angle of the original 1825 survey but established new mileposts at slightly different latitudes. The new monuments were substantial, consisting of large dirt mounds in lowlands and large rock mounds in the rocky terrain of the Ouachita Mountains.

In 1866, following the Civil War, the Choctaw signed another treaty with the United States. This time, the United States and the Choctaw believed the previous surveys were in error (Kent, 2021).

In 1875, the United State Congress passed an Act to establish the boundary line permanently, AND the amount of error in the previous surveys (Pierce, 1910):

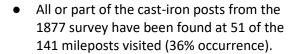
• "the Secretary of the Interior shall...cause the boundary-line...to be retraced and marked in a distinct and permanent manner; and if the original line, when retraced, shall be found to differ in any respect from what the boundary-line would be if run in accordance with the provisions of the treaties establishing the eastern boundary-line of the Choctaw and Cherokee Nations, then the surveyors shall note such variations and compute the area of the land which in that case would be taken from the State of Arkansas or the Indian country, as the case may be; and the Secretary of the Interior shall also cause any monuments set up in any former survey indicating any line at variance with the survey provided for in this act to be obliterated."

In 1877, surveyor Henry McKee entered a contract with the United States to carry out this survey. His crew set cast-iron monuments, which were five feet long and weighed around 130 pounds each.

# Division Recovery and Perpetuation of Cherokee / Choctaw Boundary Line Markers

There are 198 mileposts that define the boundary between Arkansas and Oklahoma (except for a small piece of land in Fort Smith). Since 2020, our division has visited 141 of these 198 milepost locations in search of original or perpetuating evidence. Of the 141 mileposts visited, 70 have had original GLO evidence.

We are finding original evidence in either a large cast-iron post or an earth mound constructed at most of the mileposts. All cast-iron posts were set in the 1877 GLO survey. The earth mounds south of Fort Smith were constructed in 1858. I surmise that the earth mounds north of Fort Smith were constructed during the 1877 survey (we've found no earlier records of earth mounds).





Milepost number 53 in original rock mound west of Mena, Arkansas

- All or part of the 1858-1877 earth mounds have been found at 40 of the 141 mileposts visited (28% occurrence).
- Evidence of the earth mound and cast-iron posts have been found at 14 of the 141 visited (10% occurrence).

Of the 141 visited, we have found only one original witness tree standing, a pine snag at Choctaw boundary line milepost 50.

To date, the Division has restored 72 mileposts: 69 restored in-house and three restored by a vendor.

GNSS positions are recorded on each milepost during restoration. This data is used to update and refine the state's state/county line GIS layer and to accurately position the new corner certificates in the Surveyor/GLO Map.

### Benefits of Perpetuating PLSS Monuments

There are roughly 34 million acres of land in Arkansas. In 2018, the average value of one acre of land in the state was about \$6,700. This brings the total land value in Arkansas to well over \$200 billion. There are roughly 209,000 original GLO monument locations that control title, to varying degree, to all this \$200+ billion worth of land. This makes land ownership one of the most significant investments in the state. Having good corner records and monumentation is vital to protecting this enormous investment.

With this large financial investment in Arkansas, it is crucial to have as many well-defined perpetuated PLSS corners as possible. The benefits of having certified corners are numerous.

#### Records Research

Corner certificates provide an excellent public record of a perpetuated PLSS corner location. These certificates are easily searched on the Division's website. These certificates contain a thorough background on the corner, such as original GLO description, perpetuating surveys tied to the corner, previous corner certificates, surveyor certifying the corner, and setting method for lost and obliterated corners.

#### Shortens Field Work

Certified corners are usually very visible in the field. Typically, four reference trees are used. These four trees will have a painted band, a blaze, and a bearing tag with bearing and distance to the certified corner. This makes finding and confirming the corner much quicker and easier.

#### Landowners Acknowledgement

Landowners are more likely to know of a certified corner than a typical iron pin. Certified corners are typically an aluminum pipe with a 3.25" cap exposed 6" above ground. The aluminum pipe and cap are usually next to an orange "Do Not Disturb" sign. This draws attention and, generally, respect from the adjoining landowners.

This can also speed field work. Often, a landowner can take a surveyor directly to the certified corner monument.

"The survey maker you're looking for is in that fence behind the barn. I remember when the surveyors set it 30 years ago..." – Arkansas landowner

#### Respect from Surveyors

Surveyors and field personnel are more likely to respect existing certified corner monuments. For example, if a field person computes a corner location to be 0.5 feet from a large state monument with witness trees and signs, that field person is more likely to yield to the existing monument instead of

setting a new one. This helps avoid a "pincushion corner" with multiple monuments representing one corner. The pincushion corner can lead to frustration by adjoining landowners and future surveyors.

#### **Court Costs**

Having a certified corner record and substantial ground evidence can go a long way to avoiding costly court battles. Landowners and surveyors alike are more likely to accept a certified corner as part of a legal boundary. This helps to avoid the tremendous costs associated with a land boundary court battle.

#### Administrative Boundaries and Jurisdictions

The vast majority of certified corners since 2019 report coordinates. These coordinates are used to improve administrative and jurisdictional boundaries used by tax assessors, state and federal courts, public schools, election precincts, Quorum Court members, State Senate and House of Representatives, and the United States Congress.

#### Surveyor Responses

Below are quotes from Arkansas surveyors describing some of the benefits to the public of having perpetuated PLSS corners.

- "Certified corners promote the continuity and consistency of section and quarter section corner acceptance by multiple surveyors during the present and future. This lowers the chance of conflicting surveys". - Allen Miller, PS 1704
- "First, the corners are more likely to be memorialized with a permanent monument; second, it is easier for surveyors to evaluate the history of the corners for either a future resurvey or adjoining survey by viewing a certified corner document.". Christopher Ferguson, PS 1384
- "It ensures that everyone is on the same page. Prevents duplication of efforts and the possibility of multiple corner locations". James Temple, PS 971
- "It perpetuates the location of corners in a very sound and public manner." Danny Roberson, PS 1075
- "It helps the surveyor, which helps the cost of surveys go down, which makes surveys more affordable. All of this helps the public and lessens land disputes". Jamie Hall, PS 1653
- "They are highly visible and most, if not all, have been consistently relied upon for many years. Some can be directly traced back to the original surveys. This visibility and consistency provide stability for the boundaries of the private landowner". Kevin Gregory, PS 1633
- "The monuments are highly visible, making it less likely to be destroyed during excavation or land clearing. Being a state monument in some people's mind, it has been vetted and proven and carries more weight than say a mound of stones or a pipe". Michael Pickering, PS 1574

• "Land and home ownership are two of the largest financial investments most people make in their lifetime and for the most part tract delineation and land descriptions are based on the PLSS. In my part of Arkansas, the GLO corners were set approximately 200 years ago. The PLSS framework by the GLO is what land descriptions and surveys are based on. We are losing the original GLO corner monuments and witnesses each day. The perpetuation of these positions through remonumentation and refurbishment is vital to help reduce survey costs to the landowner of today and in the future". — Cliff Tuck, PS 1548

## In Closing

Establishing, maintaining, and preserving Arkansas's Public Land Survey System is, without question, the most important mission of the Arkansas Division of Land Surveys. The physical monuments and records that make up the system govern the fabric of landownership across the entire state and contribute to the foundation of the state's economy. The Division continues to work hard at its mission by evaluating program effectiveness, identifying areas needing improvement, and working closely with surveyors across the state. In working with the state's surveyors, the Division strives to become the nation's leader in Public Land Survey System restoration, perpetuation, and archival documentation.

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